

## REMARKS

Claims 1-42 are currently pending in the application. The Examiner rejected claims 1-4, 7, 8-10, 17-21, 24-27, 34, and 37-38 under 35 U.S.C. 103(a) as being unpatentable over “Data-Over-Cable Service Interface Specifications” by Cable Television Laboratories, Inc. (DOCSIS). Claims 5-6, 11-16, 22-23, 28-33, 35-36, and 39-42 were objected to but would be allowable if rewritten in independent form. Applicants gratefully acknowledge the allowability of the above claims if rewritten in independent form.

The existing independent claims 1, 17, 34 as well as the new independent claims 43, and 48 variably recite “dynamically adjusting the Lookahead Time value … using the propagation delay data.” The Examiner acknowledges that is not taught in DOCSIS, but argues that roundtrip propagation delay is included in the LAT value and therefore it would have been obvious to use the propagation delay to dynamically adjust the Lookahead Time value. The Applicants respectfully disagree.

DOCSIS describes ranging when a cable modem first attempts to gain access to a CMTS. As stated in the paragraph beginning on page 13 line 29 of the present specification, “during the initial ranging procedure, the cable modem transmits a test signal to the CMTS. When the CMTS received this test signal, it determines a propagation value (commonly referred to as an offset value)... The offset value is then transmitted by the CMTS back to the cable modem so that the cable modem may adjust the timing of its upstream transmissions in order to compensate for the propagation delay related to the physical distance between the cable modem and the CMTS... Traditionally, however, the stored offset information at the Head End is not used for any other purpose.” DOCSIS describes using the propagation value or the offset value for ranging but does not teach or suggest “dynamically adjusting the Lookahead Time value … using the propagation delay data.”

Neither the DOCSIS reference nor any other reference cited by the Examiner is believed to have the required explicit suggestion to combine the static initial ranging described in DOCSIS with dynamic adjustment of values.

The techniques of the present invention recognize benefits of dynamically adjusting the

value, despite often increasing the complexity of the system. For example, on page 4 lines 19-29 of the specification, "many of the delay values inherent in the network vary depending upon specific network conditions, conventional cable networks are typically configured to operate using maximized delay values based upon anticipated worst-case conditions in the network. As a result, optimal performance of data transmission across the network is compromised. Further, as the use of cable networks or other access networks proliferate in the marketplace, conventional techniques for implementing data communication over a cable network may be not be sufficient for handling larger volumes of traffic which may be caused, for example, by a greater number of users accessing the Head End or by new and emerging broad band network applications such as, for example, telephony."

In view of the foregoing, Applicants believe all rejections to the independent claims have been overcome thereby placing all independent and dependent claims now pending in this application are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (510) 843-6200.

Respectfully submitted,  
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